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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,251	11/01/2001	Robert K. Naviaux	UCSD1140-1	9760

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EXAMINER	
SPIVACK, PHYLLIS G	

ART UNIT	PAPER NUMBER
1614	

DATE MAILED: 06/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/889,251	NAVIAUX, ROBERT K.	
	Examiner	Art Unit	
	Phyllis G. Spivack	1614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *67,70 and 73-91* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *67,70 and 73-91* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

S.O.O

Applicant's Amendment filed March 14, 2005 is acknowledged. Claims 68, 69, 71, 72 and 92-94 are canceled. Claims 67, 70 and 73-91 remain under consideration.

A Declaration filed by Applicant under 37 CFR 1.131 and a Declaration by Dr. William I. Nyhan are acknowledged.

In the last Office Action claims 67-94 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. It was asserted the claims contain subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors had possession of the claimed invention. The specification fails to disclose the subject matter of the present claims with respect to the 2,4-diketone pyrimidines presently claimed, as well as uridine and 1-β-D-ribofuranosyluracil.

Applicant argues administration of uridine is disclosed in Example 2, pages 15-16 of the specification in the recitation "supplementing uridine". Further, Applicant urges those skilled in the art know "uridine" is a generic name that includes 1-β-D-ribofuranosyluracil.

Applicant's arguments are persuasive. This rejection of record under 35 U.S.C. 112, first paragraph, is withdrawn.

Claims 67-94 were rejected under 35 U.S.C. 112, first paragraph, in the last Office Action as containing subject matter that was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims were directed to the treatment of any mitochondrial disorder, or for reducing or eliminating one or more

symptoms associated with a mitochondrial disorder comprising administering the compound depicted as Formula I, uridine or 1-β-D-ribofuranosyluracil. The specification provides support in Examples 1-5 on pages 14-19 for the treatment of mitochondrial renal tubular acidosis, Leigh syndrome, lactic academia, complex I deficiency, complex IV deficiency, MARIAHS syndrome and multiple mitochondrial deletion syndrome comprising administering triacetyluridine.

Applicant argues Examples 1-5 provide clear guidelines on how the methods can be practiced.

Other than the recitation in Example 2, "treatment began with uridine" to a subject having MARIAHS syndrome, the specification fails to provide guidance that would allow the skilled artisan background sufficient to practice the instant invention without resorting to undue experimentation.

Because the presently claimed invention relates to treatment of fourteen distinct disorders or syndromes comprising specifically administering either uridine or 1-β-D-ribofuranosyluracil, the rejection of record under 35 U.S.C. 112, first paragraph, is maintained over claims 67, 70 and 73-91.

The rejection of claims 68 and 92 that were rejected under 35 U.S.C. 102(a) as being anticipated by Loffler et al., Cell. Biochem. in the last Office Action is withdrawn subsequent to the cancellation of the claims.

Claims 67-80 and 88-94 were rejected under 35 U.S.C. 103(a) as being unpatentable over von Borstel, R.W., U.S. Patent 6,472,378, in the last Office Action. It

was asserted von Borstel teaches the administration of uridine or pyrimidine nucleotides and precursors to treat mitochondrial disorders.

The Declaration by the inventor under 37 CFR 1.131 antedates this reference. The rejection of record under 35 U.S.C. 103(a) is withdrawn.

Claims 67, 70 and 73-91 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

The recitation in claims 67 and 91 "the general Formula I" is vague and renders all claims indefinite. It is clear from the depiction of Formula I that both uridine and 1-β-D-ribofuranosyluracil are encompassed. The term "general" has no probative value.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 67, 70 and 73-91 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 28-54 of copending Application No. 10/868717. Although the conflicting claims are not

identical, they are not patentably distinct from each other because of overlapping subject matter.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

This newly presented ground of rejection based upon obviousness-type double patenting will not preclude the finality of this Office Action. This newly discovered application and subsequent ground of rejection were not brought to the attention of the Office and is clearly material to the present examination. Applicant will not be permitted to extend the prosecution of the present application by reason of their inaction with regard to notice to the Office of conflicting claims in the co-pending application. With appropriate notice this ground of rejection could have been incorporated in a prior Office Action.

No claim is allowed.

Applicants' Amendment necessitated the new ground of rejection presented in this Office Action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this Final Action is set to expire THREE MONTHS from the mailing date of this Action. In the event a first reply is filed within TWO MONTHS of the mailing date of this Final Action and the Advisory Action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Phyllis G. Spivack whose telephone number is 571-272-0585. The Examiner can normally be reached Mondays to Fridays from 10:30 AM to 7 PM.

If attempts to reach the Examiner by telephone are unsuccessful after one business day, the Examiner's supervisor, Chris Low, can be reached at telephone number 571-272-0951. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phyllis Spivack

Phyllis G. Spivack
Primary Examiner
Art Unit 1614

PHYLLIS SPIVACK
PRIMARY EXAMINER

June 7, 2005